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MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052			EXAMINER ATALA, JAMIE JO	
			ART UNIT 2621	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 09/895,869	<b>Applicant(s)</b> GATES ET AL.	
	<b>Examiner</b> JAMIE JO VENT ATALA	<b>Art Unit</b> 2621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23,25-43,46 and 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23,25-43,46 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Furthermore, the new reference of Ottesen et al (US 5,930,493) is used to teach the system for tagging data streams in order to allow for identifying of segments (Column 9 Lines 60+) and thereby overcomes the arguments set forth by applicant. Additionally, it is noted by the examiner that the claim limitation of "flag" is being used in the broadest reasonable sense in light of the specification to mean an indicator of the data stream. The applicant is further advised that further defining of the term "flag" (i.e. clearpoint flag, etc) that is being used through the claimed invention would overcome the prior art of record.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 and 37-43 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vallone et al (US 6,642,939). in view of Ottesen et al (US 5,930,493).

**[claim 1]**

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In regard to Claim 1, Vallone et al discloses a method comprising:

- Receiving a data stream encoded using a first encoding format (Figure 1 shows receiving a broadcast data stream that is encoded using various formats as stated in Column 5 Lines 20-25 and Column 8 Lines 10-18);
- Receiving a data stream encoded using a second encoding format (Column 5 Lines 5+ describes the various encoding formats such as analog broadcast streams such as NTSC and PAL that are encoded using QUAM standards; and digital streams such as ATSC, DBS, and DSS that are encoded based on Moving Pictures Experts Group 2 (MPEG2) and MPEG2 Transport standards);
- Demultiplexing the first broadcast data stream while maintaining the encoding format of the broadcast data stream (Column 8 Lines 3-8 describe the demultiplexing of the broadcast data streams that are encoded in MPEG2 and MPEG2 Transport standards);
- Demultiplexing the second broadcast data stream while maintaining the second encoding format of the second broadcast data stream (Column 8 Lines 3-8 describe the demultiplexing of the broadcast data streams with the use of the MPEG2 and MPEG2 Transport standards);
- Storing the first and second broadcast data stream on a storage device in the encoded format (Figure 1 storage device/hard disk drive 105 wherein the broadcast data streams is stored in an MPEG format); and

- Time shifting the first and second broadcast data streams using at least in part the respective first and second encoding formats, wherein said time shifting is implemented regardless of encoding formats of first and second broadcast data streams (Column 10 Lines 62+ describes a function of pausing thereby time shifting the broadcast data stream); however fails to disclose
  - Tagging the first broadcast data stream with at least one flag
  - Tagging the second data stream with at least one flag
  - Using at least one flag and at least one additional flag for time shifting

Ottesen et al teaches a system for tagging broadcast data streams (Column 9 Lines 60+ wherein the segments are tagged and flagged by an address identifier (example A1). It is taught that the unique address identifier for each segment acts as a flag for that particular segment as further seen in Figures 6 and 7. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use digital data stream wherein timeshifting occurs, as disclosed by Vallone et al, and further incorporate a system that flags and tags segments, as taught by Ottesen et al, in order to allow for proper storage and processing of data within the broadcast stream.

**[claims 2 & 3]**

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In regard to Claims 2 and 3, Vallone et al discloses the first broadcast data stream is a digital data stream and may utilize any data format (Column 5 Lines 6-11 states that television (TV) input streams are inputted in multiple forms).

**[claim 4]**

In regard to claim 4, Vallone et al discloses the storing the first broadcast data stream on a storage device includes writing the broadcast data stream to an application programming interface (Figure 13 shows the queue up of programs from the hard disk for writing data to an application program interface).

**[claims 5, 6, & 7]**

In regard to Claims 5, 6, and 7 Vallone et al discloses the method of further comprising retrieving:

- the first broadcast data stream from the storage device (Figure 1 shows the data stream from the storage device);
- the first broadcast data stream simultaneously (Figure 2 shows the data stream being retrieved simultaneously from the media switch); and
- Different portions of the first broadcast data stream simultaneously (Figure 6 shows different portions of the broadcast data stream simultaneously retrieved).

**[claims 8, 9, & 10]**

In regard to Claims 8, 9, and 10 Vallone et al discloses the method wherein the received first broadcast stream is stored on the storage device using:

- Plurality of single temporary files (Figure 9 cache file 918 has group of single temporary files); and
- At least one permanent file (Column 17 Lines 5-8 default preference files that are permanent in the system).

**[claim 11]**

In regard to Claim 11, Vallone et al discloses that one or more computer-readable memories containing a computer program is executable by a processor to perform the method as recited in Claims 1, (Figure 8 and 9 shows the program logic of the computer program that performs the methods as stated in methods 1, 12, and 32).

**[claim 37]**

In regard to Claim 37, Vallone et al in view of Browne, discloses one or more computer-readable media, as described in Claim 1, and additionally states having a computer readable media stored thereon a computer program (Figures 8 and 9 show the program logic that resides in the CPU seen in Figure 7 element 713) that, when executed by one or more processors, causes the one or more processors to:

- Separate the components of the broadcast data stream encoded using a first encoding format (Column 8 Lines 3-8 describe the demultiplexing of the digital data stream);
- Separate the components of a second broadcast data stream encoded using a second encoding format
- Store the components of the first and second broadcast data stream on a hard disk drive (Figure 1 storage device/hard disk drive 105);

- Receive a request to play back the stored components of the first broadcast data stream (Figure 7 command can be given to media switch regarding playback);;
- Retrieve the stored components of the first broadcast data stream from the hard disk drive (Column 8 Lines 31-35 states the retrieving of the stored components of the digital data stream);
- Decode the components of the first broadcast stream (Figure 8 shows a decoder for decoding the components of the broadcast stream); and
- Rendering the components of the first broadcast stream (Figure 7 parse 705 and event queue 708 renders the streams for playback control); however fails to disclose
  - Tag the first broadcast data stream with at least one flag, and tag the second broadcast data stream with at least one additional flag.

Ottesen et al teaches a system for tagging broadcast data streams (Column 9 Lines 60+ wherein the segments are tagged and flagged by an address identifier (example A1). It is taught that the unique address identifier for each segment acts as a flag for that particular segment as further seen in Figures 6 and 7.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use digital data stream wherein timeshifting occurs, as disclosed by Vallone et al, and further incorporate a system that flags and tags segments, as taught by Ottesen et al, in order to allow for proper storage and processing of data within the broadcast stream.



**[claims 38 & 39]**

In regard to Claims 38 and 39, Vallone et al discloses one or more computer-readable media wherein one or more processors render the following:

- Components of the broadcast stream includes rendering the components of the broadcast stream in a manner that corresponds to the received play back request (Figure 8); and
- Components of the broadcast stream include rendering multiple copies of the broadcast stream simultaneously (Figure 9).

**[claims 40, 41, & 42]**

In regard to Claims 40, 41, and 42, Vallone et al discloses one ore more computer-readable media wherein:

- First Broadcast data stream is a television broadcast (Figure 7 input signal is determined television broadcast through MPEG decoder)
- Separate components of a broadcast data stream include audio data, video data, and Internet Protocol data (Column 8 Lines 6-8 states the demultiplexing of audio, video and “private data channel streams” which would encompasses internet protocol data)..

**[claim 43]**

In regard to Claim 43, Vallone et al in view of Browne discloses a computer readable media with the additional apparatus comprising:

- A capture module configured to capture a first data stream, wherein the first data stream may be represented by a first data format and the

second data stream is represented by a second data format, and wherein the data stream is encoded using an encoding format the second data stream is encoded using a second encoding format (Figure 8 element 801 captures different data formats);

- Data storage module configured to store the captured data stream in the encoded formats (Figure 8 element 804); and
- Rendering module configured to decode the data stream and to render the data streams from the data stored on the data storage module (Figure 8 double arrow between elements 802 and 804).

**[claim 46]**

In regard to Claim 46, Vallone et al discloses the capture module is further configured to separate the components of the data stream and the data storage module is further configured to store each of the separate components of the data stream (Column 9 Lines 20+ describes the storage of the data stream into the hard disk).

**[claim 47]**

In regard to Claim 47, Vallone et al discloses the data storage module includes at least one hard disk drive (Figure 1).

3. Claims 12-23 and 25-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vallone et al (US 6,642,939) in view of Ottesen et al (US 5,930,493).

**[claim 12]**

In regard to Claim 12, Vallone et al discloses the method comprising:

- Receiving a first digital data stream encoded using a first encoding format (Figure 1 shows receiving a digital data stream that is encoded using various formats as stated in Column 5 Lines 20-25 and Column 8 Lines 10-18);
- Separating components of the first digital data stream (Column 8 Lines 3-8 describe the demultiplexing of the digital data stream);
- Storing the components of the first digital data stream on a storage device wherein the components are stored in the first encoded format (Figure 1 storage device/hard disk);
- Receiving a command to play back the first digital data stream (Figure 7 command can be given to media switch regarding playback);
- Retrieving at least one of the stored components of the first digital data stream from the storage device (Column 8 Lines 31-35 states the retrieving of the stored components of the digital data stream);
- Decoding the retrieved component (Figure 9 shows a decoder for the retrieve component needed for output of the data stream) and
- Rendering the components of the digital data stream in a manner that corresponds to the received play back command (Figure 7 parse 705 and event queue 708 renders the streams for playback control); however, fails to disclose separating the components of the second digital data stream, tagging the components with at least one flag, and storing the second

digital data stream on the storage device, wherein the components are stored and tagged with an additional flag.

Ottesen et al teaches a system for tagging broadcast data streams (Column 9 Lines 60+ wherein the segments are tagged and flagged by an address identifier (example A1). It is taught that the unique address identifier for each segment acts as a flag for that particular segment as further seen in Figures 6 and 7. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use digital data stream wherein timeshifting occurs, as disclosed by Vallone et al, and further incorporate a system that flags and tags segments, as taught by Ottesen et al, in order to allow for proper storage and processing of data within the broadcast stream.

**[claim 13]**

In regard to Claim 13, Vallone et al discloses a method comprising:

- Receiving a command to pause play back of the digital data stream and halting rendering of the components of the digital data stream in response to the pause command (Column 9 Lines 60-68 describe the pause method and the systems response to the command).

**[claims 14, 15, 16, 17, 18, 19, & 20]**

In regard to Claims 14, 15, 16, 17, 18, 19, and 20, Vallone et al discloses the play back command is: playback command, rewind command, fast forward command, seek

command, slow motion play command, skip forward command, and skip backward command (Column 8 Lines 16-17).

**[claim 21]**

In regard to claim 21, Vallone et al discloses the storing the first broadcast data stream on a storage device includes writing the broadcast data stream to an application programming interface (Figure 13 shows the queue up of programs from the hard disk for writing data to an application program interface).

**[claims 22 & 23]**

In regard to Claims 22 and 23 Vallone et al discloses the method wherein the received first broadcast stream is stored on the storage device using:

- Plurality of single temporary files (Figure 9 cache file 918 has group of single temporary files); and
- At least one permanent file (Column 17 Lines 5-8 default preference files that are permanent in the system).

**[claim 25]**

In regard to Claim 25, Vallone et al discloses the digital data stream can be encoded using any encoding format and can utilize any data format (Column 5 Lines 20-25 and Column 8 Lines 10-18 describe encoding methods of the system).

**[claim 26]**

In regard to Claim 26 Vallone et al discloses the method of further comprising retrieving:

- the first broadcast data stream from the storage device (Figure 1 shows the data stream from the storage device);

- the first broadcast data stream simultaneously (Figure 2 shows the data stream being retrieved simultaneously from the media switch); and
- Different portions of the first broadcast data stream simultaneously (Figure 6 shows different portions of the broadcast data stream simultaneously retrieved).

**[claims 27 & 28]**

In regard to Claims 27 and 28, Vallone et al discloses a method wherein the retrieving the stored components of the digital data stream includes a first device retrieving data associated with a first data stream stored on the storage device and a second device simultaneously retrieving data associated with a second data stream stored on the storage device (Column 8 Lines 44-50 describe the method and devices used for retrieving data).

**[claims 29 & 30]**

In regard to Claims 29 and 30, Vallone et al discloses a method wherein separating components of the digital data stream includes demultiplexing video data and audio data and internet protocol data from the digital data stream (Column 8 Lines 6-8 states the demultiplexing of audio, video and “private data channel streams” which would encompasses internet protocol data).

**[claim 31]**

In regard to Claim 31, Vallone et al discloses that one or more computer-readable memories containing a computer program is executable by a processor (Figure 8 and 9 shows the program logic of the computer program that performs the methods).

**[claim 32]**

In regard to Claim 32, Vallone et al discloses the method of data streams as stated in claims 12 with the additional limitations of receiving a request to pause rendering of the broadcast data stream in response to the pause request to halt rendering of the broadcast data stream and continuing to store the components of the broadcast data stream on the storage device (Column 9 Lines 60-68 and Column 10 Lines 1-10 states the events that occur when a pause request is received and the storage of the broadcast data stream onto the hard disk drive); however, fails to disclose the tagging of the broadcast stream with at least one flag.

Ottesen et al teaches a system for tagging broadcast data streams (Column 9 Lines 60+ wherein the segments are tagged and flagged by an address identifier (example A1)). It is taught that the unique address identifier for each segment acts as a flag for that particular segment as further seen in Figures 6 and 7. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use digital data stream wherein timeshifting occurs, as disclosed by Vallone et al, and further incorporate a system that flags and tags segments, as taught by Ottesen et al, in order to allow for proper storage and processing of data within the broadcast stream.

**[claims 33 & 34]**

In regard to Claims 33 and 34, Vallone et al discloses the broadcast data stream is a television broadcast and is digital data stream (Column 5 Lines 6-11 states that television (TV) input streams are inputted in multiple forms).

**[claim 35]**

In regard to Claim 35, Vallone et al discloses a method comprising of receiving a request to resume rendering of the broadcast data stream and rendering the broadcast data stream based on the request to resume rendering of the broadcast data stream (Figure 27 and element 2707 to resume rendering of the broadcast data stream).

**[claim 36]**

In regard to Claim 36, Vallone et al discloses one or more computer-readable memories containing a computer program that is executable by a processor to perform the method (Figure 7 shows the computer-readable memory for executing the processing to be performed).

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not



mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE JO VENT ATALA whose telephone number is (571)272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/JAMIE JO VENT ATALA/

Examiner, Art Unit 2621

/Thai Tran/

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